

REMARKS

Receipt of the Office Action of February 23, 2010 is gratefully acknowledged.

Claims 11 - 19 and 21 were examined. Claim 21 was indicated as being allowed and claims 11 - 19 were finally rejected as follows: claims 12 - 16 and 18 under 35 USC 102(a) by Ohta et al; claim 11 under 35 USC 103(a) by Ohta et al in view of Kubena et al; and claims 17 and 19 under 35 USC 103(a) over Ohta et al in view of Kubena et al and Dual et al.

Regarding Ohta et al. It discloses a device for measuring an angular rate of rotation around a z-axis. The device comprises a tuning-fork type vibration body which is secured to a stem via a support arm and which is excited to mechanical oscillations in an x-axis. A rotation around the z-axis leads to a vibration in the y-direction because of an emerging coriolis force. Driving and detecting electrodes are secured to the vibration body. A vibration in the direction of the y-axis leads to an output signal in the detecting electrode. On the stem a circuit board is arranged that comprises a sensor circuit for detecting the output signal of the vibration body.

There are at least two big differences between Ohta' at al, device and what is claimed in claims 12 and 15 (rejected as anticipated) by the applicant. First, Ohta et al does not show a force detection unit coupled to a securement. Second, Ohta et al measures a force acting on the vibration body in order to determine an angular rate of rotation, i.e. the variable to be determined, while according to the present invention, the force acting on the securement is detected, i.e. a force that is not related to the variable to be determined.

These differences are found in claims 12 and 15. Accordingly, claims 12 and 15 cannot be anticipated by Ohta et al because, as is well settled regarding the law of anticipation, a claim cannot be anticipated unless each and every positively recited limitation is found in a single reference. Since Ohta et al does not disclose the two noted features, which are claimed, it cannot anticipate claims 12 and 15, nor claims 13, 14, 16 and 18.

Moreover, another distinction can be seen when considering the forces. The measuring device as claimed in claim 15 and the apparatus for adjusting a measuring device as claimed in claim 12 detect reaction forces and/or moments acting on the securement due to the oscillation of the oscillating unit. Thereby, asymmetry in the oscillating unit is detected. This information can be used to prevent an asymmetry during manufacture and/or to monitor symmetry during use. Therefore the force detection unit can be a permanent component of the measuring device or only be coupled to the measuring device for adjustment. In contrast, the device of Ohta et al permanently comprises a force detection unit and a driving/receiving unit, as both are only used for the measurement of the variable to be determined.

Besides that, Ohta et al does not mention that asymmetry in the oscillatory unit could cause problems in the determination of the variable to be measured.

Regarding the force detection unit, the (sensor) circuit, that the examiner refers to as "force detection unit", is rather an evaluating unit which evaluates the signals of the detecting electrodes, and not a force detection unit that detects force itself. The detecting electrodes constitute a kind of "force detecting unit", as it is they that react to the forces from the oscillating arms. However, the detecting electrodes are not coupled to the securement, but to the oscillating arms. Hence, the force detecting unit/detecting electrodes cannot detect reaction forces and/or reaction moments which act on the securement due to the oscillations of the

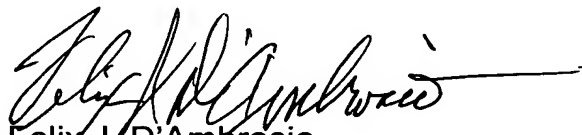
oscillating body, as does the force detecting unit according to the present invention.

The amendments to the claims as noted above are supported by the specification. They have been made to emphasize that the forces that are detected by the force detecting unit are due to an asymmetry of the mechanical oscillating unit, i.e., are only present if the components of the mechanical oscillating unit are not balanced. By detecting these forces, symmetry can be controlled.

The force detecting unit does not detect reaction forces and/or reaction moments from the oscillating unit, but detects reaction forces and/or moments due to the oscillations of the oscillating unit. For clarity on this point. Claims 11, 12 and 15 have been amended as noted above.

As neither Ohta et al nor the other references cited by the examiner show a force detection unit coupled to the securement of the mechanical oscillating unit and detected reaction forces and/or reaction moments which act on the securement, which distinctions are found in the claims, it is respectfully submitted that claims 11-19 are allowable along with claim 21

Respectfully submitted,



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